



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|-------------------------|------------------|
| 10/632,788 | 08/01/2003 | Paul C. Wacker | H0005416 (1161.1128101) | 5829 |

128 7590 11/03/2006

HONEYWELL INTERNATIONAL INC.
101 COLUMBIA ROAD
P O BOX 2245
MORRISTOWN, NJ 07962-2245

| |
|----------|
| EXAMINER |
|----------|

BANKHEAD, GENE LOUIS

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

3744

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/632,788 | | WACKER, PAUL C. | |
| | Examiner | | Art Unit | |
| | Gene L. Bankhead | | 3744 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 25-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 and 25-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08/01/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-9, 12-18, 21-23 and 25-28 rejected under 35 U.S.C. 103(a) as being unpatentable over Pittman in view of Vlasak.

Pittman discloses the invention substantially as claimed. Pittman discloses a method and system for controlling a HVAC system having a heating unit and a cooling unit in which the heating and cooling units are both operated if the room temperature is below the set point temperature and the humidity is above the humidity set point (see blocks 80, 88 and 90 of Figure 3) and only the cooling unit is operated if the room temperature is above the set point temperature regardless of the humidity in the room (see blocks 80 and 82 of Figure 3). Pittman modulates the heat output provided by the heating unit during the dehumidification operation (block 88, 90 of Figure 3) in order to match the heating and cooling outputs during dehumidification. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have eliminated the modulation of the heating unit during the dehumidification operation, since it has been held that omission of an element and its function in a combination (i.e. control of modulation valve 56) where the remaining elements

Art Unit: 3744

perform the same functions as before involves only routine skill in the art. In re Karlson, 136 USPQ 184. It would further have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the system of Pittman such that heating and cooling systems were sized to meet the expected heating and cooling loads in order to eliminate the need for any additional heating and cooling units. Vlasak teaches the use of a forced air furnace 22 in order to provide heating to an inside space. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the system of Pittman such that it used a forced air furnace in order to provide the heating rather than the hot water coil in view of the teachings of Vlasak.

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pittman and Vlasak as applied to claim 1 above, and further in view of admitted prior art. It is taken to be admitted prior art that the use of computers to control HVAC systems were conventional at the time the invention was made in view of the lack of applicants arguments contrary in response to the Official Notice in the previous Office Action. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the system of Pittman wherein the control program would inherently be stored on computer-readable medium.

Claims 4 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pittman and Vlasak as applied to claim 1 above, and further in view of Alfrod. Alfrod teaches the use of multiple stages of cooling in which heating and cooling units are operated together if only the first stage cooling is

Art Unit: 3744

required and the humidity is above the humidity set point (see blocks 210, 216, 218, 220 and 222 of Figure 6) and only the cooling units are operated if second or more stages of cooling are required regardless of the humidity in the room (see blocks 210, 220 and 224 of Figure 6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the system of Pittman such that it included the use of multiple stages of cooling in which heating and cooling units are operated together if only the first stage cooling is required and the humidity is above the humidity set point and only the cooling units are operated if second or more stages of cooling are required regardless of the humidity in the room in view of the teachings of Alfrod.

Response to Arguments

Applicant's arguments filed on 05/02/06 have been considered but are not persuasive.

The assertion that Pittman teaches away from a forced furnace and thus cannot be combined with Vlasak is considered moot. It should be of note Pittman teaches forced air furnaces are conventional and well known in the art to be used in residential air conditioning systems (column 1 lines 12-17). Further the term forced air furnace is a broad term, and in its broadest reasonable interpretation could be considered as any unit that is able to provide heat, which Pittman does disclose.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 3744


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gene L. Bankhead whose telephone number is (571)-272-8963. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571)-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


CHERYL TYLER
SUPERVISORY PATENT EXAMINER

Examiner
Art Unit 3744
GB